

TKG® AL BLACK (POM C BLACK)

Density 1,41 g/cm³

Colour Black opaque

Chemical Designation POM C (Polyacetal copolymer)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Modulus of elasticity	2800	MPa	1 mm/min	DIN EN ISO 527-2
Tensile strength	67	MPa	50 mm/min	DIN EN ISO 527-2
Tensile strength at yield	67	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	9	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	32	%	50 mm/min	DIN EN ISO 527-2
Flexural strength	91	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	2600	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	20 / 35	MPa	1% / 2%. 5 mm/min , 10 N	EN ISO 604
Compression modulus	2300	MPa	5 mm/min , 10 N	EN ISO 604
Impact strength (Charpy)	150	Kj/m ²	Max. 7,5j	DIN EN ISO 179-1EU
Notched Impact stren. (Charpy)	6	Kj/m ²	Max. 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	165	MPa		ISO 2039-1
Thermal properties				
Glass transition temperature	- 60	°C		DIN 53765
Melting temperature	166	°C		DIN 53765
Service temperature	140	°C	Short term	
Service temperature	100	°C	Long term	
Thermal expansion	13	10 ⁻⁵ K ⁻¹	23-60°C long	DIN EN ISO 11359-1;2
Thermal expansion	14	10 ⁻⁵ K ⁻¹	23-100°C long	DIN EN ISO 11359-1;2
Specific heat	1,4	J/(g·K)		ISO 22007-4:2008
Thermal conductivity	0,39	W/(K·m)		ISO 22007-4:2008
Electrical properties				
Surface resistance	> 10 ¹²	Ω		DIN IEC 60093
Miscellaneous properties				
Water absorption	0,05 / 0,1	%	24h / 96h (23°C)	DIN EN ISO 62
Resistance to hot mater / bases	(+)			
Resistance to weathering	(+)			
Flammability (UL94)	HB		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

High toughness
 Good machinability
 High strength
 Resistant against cleaning agents
 Good slide and wear resistance

INDUSTRY APPLICATIONS

Medical technology
 Food engineering
 Packaging machinery
 Automotive industry
 Mechanical engineering

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